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## A Survey of the Teaching of Typing in North Dakota

Donald M. Braniff

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A SURVEY OF THE TEACHING OF  
TYPING IN NORTH DAKOTA

A Thesis  
Submitted to the Graduate Faculty  
of the  
University of North Dakota

by  
Donald M. Braniff

In Partial Fulfillment of the Requirements  
for the  
Degree of  
Master of Science in Education  
. August, 1952

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130335

This thesis, presented by Donald M. Braniff, in partial fulfillment of the requirements for the Degree of Master of Science in Education in the University of North Dakota, is hereby approved by the committee under whom the work has been done.

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CHAPTER I  
THE PROBLEM AND ITS SCOPE

Introduction

Typing is considered an important subject in high school. Many of the students graduating from high school will make their living by working in offices or in their own businesses. Girls are being placed in positions from high school if they have taken typing, shorthand, and some of the other commercial courses.

Many more students are enrolled in typing now than ever before. Teachers are now more qualified to teach typing than they were some years ago. There are now departments of Business Education in many schools and a qualified teacher is needed to teach these subjects. There are still cases in the smaller schools where unqualified teachers are attempting to teach the course.

Students who cannot afford a college education are greatly helped if the high school can prepare them for a life's occupation. Many of the high school graduates take Civil Service Examinations every year and are placed in positions. Once these students have acquired the positions and do well they can work their way up. This procedure would not be as fast as it could be if the student went to school but for some of the students it is the only way.

For students who are going to college when they finish high school typing is still important. Professors in college would much rather receive typed material than they would material that has been written in long hand, and many times it is compulsory to have the material typed. If one has the knowledge of knowing how to type he can save much time that could be spent on studying.

Many persons acquire a knowledge of the typewriter keyboard: that is, they know the location of the keys. This is a fine thing in itself, but it is not enough. Techniques can and should be perfected. It is possible to accomplish this only through proper information, or "know-how," and experience.

#### THE PROBLEM

There has been much discussion in regard for qualified teachers in the teaching of typing. The purpose of this survey is to determine how the teachers differ in their teaching of the subject. The instructions for every lesson are stated in the text but it is still essential for the teacher to have had the education to teach the subject or at least office experience so he would know what the student would encounter after graduation.

There is a need for better instruction in typing to teach the subject matter in a more appropriate manner and also to encourage more of our students to take typing. There are about two million persons employed as typists

and stenographers in the United States. These people make their living almost exclusively by typing the letters, contracts, memorandums, specifications, and manuscripts without which our fast-moving business and industry would be slowed down to a snail's pace. For years to come many people will earn their living and do their part of the world's work on the typewriter.

The purpose of this study is to present the answers to the following questions:

1. What education and experience do the teachers of typing in North Dakota have?
2. What teaching practices do the teachers use?
3. What are the aids, devices, and techniques used by the teachers?
4. What skills do the teachers demonstrate and when do they demonstrate them?

In the teaching practices such questions as what does the teacher expect of his students and what sources do the teachers use in planning the lessons. The purpose of the questions on teaching devices, aids, or techniques, was to determine what the teachers are doing to aid in the learning of the students. A copy of the questionnaire and a list of the towns answering the questionnaire is stated in the Appendix.

### DELIMITATIONS

This survey was limited to the education of the teachers, teaching practices, teaching devices, aids, or techniques, and the demonstration of skills. The survey questionnaire did not ask if the schools were preparing students for office work or whether they had an on the job training program.

This survey was further limited to the schools in North Dakota who teach typing. There were only two schools that do not teach typing who received questionnaires. These students take typing by correspondence from the Agriculture College, Fargo, North Dakota.

Little attempt has been made in this survey to explain the reasons for the difference in opinions concerning the different practices used in the teaching of typing by the teachers. Each teacher will have to teach according to his class.

### SOURCES OF DATA

A questionnaire was sent to all the schools in North Dakota that taught typing. This questionnaire was two pages long and was made in such a manner that all the teacher had to do was check the answers that he considered correct. This questionnaire was sent to the three classifications of schools: Fully Accredited, Minor Accredited, and the Graded and Consolidated.

The questionnaires were sent out November 24, 1951, and all but ten of those returned were in by December 20,

1951. Most of the returns came in the first week. The filling out of the questionnaires were done on a voluntary basis.

There were 301 questionnaires sent out to the schools where typing was being taught. The Fully Accredited schools returned the larger percentage of the questionnaires and these questionnaires were the most complete. Some of the questionnaires were completed on the first page but the second page was left blank. The questionnaires were made out in such a manner that all the teachers had to do was check the answer they wished or to indicate their opinion by a number.

Table I shows the number of questionnaires sent out to the schools and the number and percentage received.

TABLE I  
QUESTIONNAIRES SENT AND RECEIVED

	Fully Accredited	Minor Accredited	Graded and Consolidated
Questionnaires sent	148	87	66
Questionnaires received	77	34	25
Percentage returned	52	39	38

#### RELATED STUDIES

If students are to become really proficient in type-writing they must not only be interested in the subject at the time they enroll, but this interest must be main-

tained throughout the entire course. Interest, in all probability, will not be maintained unless there is an enthusiastic teacher who has the knowledge and energy to furnish the necessary stimuli. It is often been repeated that "success is composed of ten per cent inspiration and ninety per cent perspiration". Many teachers, however, are either unwilling or unable to furnish this necessary ten per cent of inspiration.

The basic essentials of finger gymnastics, warm-up drills, drills on letter combinations, word sentences, and paragraphs: drills on letter writing, tabulation, and timed writings, are good methods but they can easily become monotonous if overworked. A teacher should use different methods of approach each day.

Regardless of how poor a typewriting student may be, the teacher should always be able to find something about his work that is deserving of praise. Psychologists tell us, and we know it to be true, that knowledge of success is a vital factor in the learning process and more effective than knowledge of failure.

Typewriting students should be encouraged to make personal use of their typewriting skills just as soon as they acquire a reasonable degree of proficiency in the basic skills.

Motivation in typewriting by means of graphs, progress charts, bulletin board or blackboard honor rolls,

certificates of awards, honorable mention in the school assemblies, school papers, local newspapers, bulletin board displays of good work, and the like, all have a very definite wholesome influence on the students to spure them on to their very best.<sup>1</sup>

George W. Crane states: "From our research into marginal learning it seems that the student must have the spirit of the innovator, even though it is more difficult for him to become one. It is this spirit that should be encouraged."<sup>2</sup>

The disparity between methods of teaching typewriting is apparent when one reviews the short history of typing. In contrast to the Blackstone<sup>3</sup> approach of one new letter a day, Reynolds<sup>4</sup> has claimed good results by representing the whole keyboard on the first day. Pepe<sup>5</sup> in his book "Typing in 24 Hours", offers a plan for teaching personal use typing that is worth investigating.

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<sup>1</sup>E. E. Hatfield, Devices for Motivating Typewriting, "The Journal of Business Education, October, 1950, PP. 67-68

<sup>2</sup>George W. Crane, Psychology Applied, Hopkins Syndicate Inc., New York, 1948, PP. 69-73

<sup>3</sup>E. G. Blackstone, "How to Speed up Typewriting Instruction," The National Business Education Quarterly, XII December 1943, P. 65

<sup>4</sup>Helen Reynolds, "Presenting the Whole Letter Keyboard of the Typewriter on the First Day," The National Business Education Quarterly, XII December 1943, PP. 27-28

<sup>5</sup>Philip S. Pepe, Typing in 24 Hours, The Gregg Publishing Company, New York, 1947



There are, however, certain factors that condition learning that do not vary greatly with individual students.

These factors are:

1. The learner must know the goal toward which he is working.
2. The learner must understand the purpose of each practice project and the expected outcomes of the use of a particular practice procedure. This means that he must not only know how he should practice, but also why.
3. The learner must like the work. "Enjoyable learning is essential to efficient learning".
4. Knowledge of progress in learning is essential to efficient learning.
5. Repetitive practice is essential to the development of skill.
6. Practice makes perfect only if there is a definite drive toward perfection.
7. Mere practice will not develop habit. The repetitions must be regular and frequent, rather than numerous, and made with all the attention at the individuals command.

It is known that learning is a process of making desirable changes in behavior. When there is no change in behavior, there is no learning; when there is no learning,

there has been no teaching, no matter what classroom procedures have been used.<sup>6</sup>

Typing teachers should provide opportunities for experience in democratic procedures by effecting a proper classroom organization. Not only will proper organization help students to experience the meaning of democracy, but it will make the whole job easier for the teacher. The typing teacher is the expert who points out right directions, timesaving devices, proper techniques, and who builds enthusiasms. He is the coach, standing on the side lines directing the work of the class in the most efficient manner possible.<sup>7</sup>

Odell and Stuart have the following to say concerning classroom organization:

One fact frequently overlooked by the student and even by the typewriting teacher is that a person to be successful in his chosen vocation must possess other qualifications in addition to mere vocational skill. He must possess a pleasing personality, ability to meet people, tact in refusing requests when necessary, patience in dealing with difficult situations, courtesy at all times, and other less general traits which may be necessary in particular positions.

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<sup>6</sup>D. D. Lessenberry, Methods of Teaching Typewriting, South-Western Publishing Company, Inc., Spring 1937 P. 4

<sup>7</sup>Harm Harms, Methods in Vocational Business Education, South-Western Publishing Company, 1949, PP. 82-83

The difference between success and failure in achieving these important concomitant values lies in the classroom organization plan which is adopted.<sup>8</sup>

The American way of life requires considerable emphasis on the individual. This individuality, which some say is the only remaining mark of distinction between democracy and some other forms of government, also carries over into the classroom.

In all schools the proper solution of the matter of individual differences is of paramount importance because frequently each student represents a problem that is entirely individual. The successful teacher is one who learns quickly the names of each student and who in a short period of time can talk intelligently concerning the interests of each.

The typing teacher must expect to find a wide range of abilities in his typing class. This is true of every form of endeavor. Some students understand directions, others do not; some read too fast and so lose control, others do not read fast enough.

In considering individual differences, the whole individual must be concerned. Even the individual person will not stay put as a personality but will react differently on different days and under varying conditions.

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<sup>8</sup>William R. Odell and Esta Ross Stuart, Principles and Techniques for Directing the Learning of Typewriting, Heath and Company, Boston, 1945, PP. 19-23

There is, therefore, no specific procedure that can be suggested to the beginning teacher. The first step in his procedure is to recognize that these varying factors do exist. To be different is to be normal. The better the teacher knows his students, the better will he be able to effect a proper solution.<sup>9</sup>

Authorities agree that:

1. Attitude-the desire to want to be a good typist.
2. Good work habits-right position at the machine, proper stroking, efficient handling of materials, proper spacing of attention and effort, neatness, and a minimum of lost motion.
3. Knowledge factors-the proper "know-how". A part of typing efficiency is the ability to exercise quick and accurate judgment in connection with the many writing details. The proper procedure here is simply to know what leading authorities have decreed as the best practice.
4. Quality and control-It is during this stage of his development that the student should formulate a concept of what constitutes good typing, should subscribe to an acceptable standard, should overcome the usual inhibitions, fears, and indecisions which so often hamper proper control.

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<sup>9</sup>Harm Harms, Methods in Vocational Business Education, South-Western Publishing Company, 1949, PP. 103-104

5. Speed-Although basic speed patterns are emphasized from the very first day, nevertheless, speed is here placed near the end in this list of objectives. Without the foregoing objectives, a speed building program is not likely to succeed.
6. Performance-the ability to do. Producing practical results with the typewriter, especially on a production basis, should be reserved as an objective of advanced typing. Nevertheless, by the time students have completed the first half of their typing program they should be able to set up simple letters from printed copy, should be able to arrange copy attractively on different size forms, should be able to do some composing at the machine, and should be able to do simple tabulation.

One of the big factors in both the teaching of typing by the teacher and the learning to type by the student is the willingness to do a good job. Everyone involved must have a desire to gain all the knowledge possible and to make good use of it.

## CHAPTER II

### THE TEACHER AND TEACHING PRACTICES

This chapter deals with two aspects of the teaching of typing. First of all it shows the education of the teachers and the qualifications of these teachers. It then shows the teaching practices used by the teachers.

Table 2 shows the number of years of education the teachers have and the percentage that have their Master's degree. The percentage that have taken a methods course in typing is also stated. All the teachers have the four year degree.

The teachers of typing in the Graded and Consolidated Schools have the most education, but they are not as qualified to teach typing as the other two classifications of schools.

TABLE 2

#### EDUCATION AND QUALIFICATIONS OF TEACHERS

Class of School	Years of Education	Per cent with Masters Degree	Per cent having a methods course
Fully Accredited	4.3	18	62
Minor Accredited	4.3	18	42
Graded and Consolidated	4.5	32	30

There are many of the teachers who have never had typing in either high school or in college. This would indicate that these teachers are trying to teach from the illustrations given in the book and not at all from past experience in typing. It is true that the book should be followed but at the same time it is helpful and many times beneficial to bring out points that the teacher had trouble with when he took typing. On the average the teachers of typing have taught the course a considerable number of years but they have more over-all teaching experience than they do in the subject of typing.

Table 3 shows the percentage of teachers who have had typing in either high school or college. It also shows the number of years they have taught typing compared with the number of years they have taught school.

TABLE 3  
PERCENTAGE OF TEACHERS HAVING TYPING AND  
TEACHING EXPERIENCE

Class of School	Types of experience			
	High School Per cent	College Per cent	Years of teaching typing	Years of over-all teaching
Fully Accredited	71	71	5.3	8.5
Minor Accredited	62	59	2.8	8.7
Graded and Consolidated	60	52	5.1	9.1

The percentages of those who have had experience in working in an office were considered quite large. This sort of work would help the teacher considerably in teaching the students typing. A big factor in teaching typing is to prepare a student for office work or for personal use. Most of the jobs held by these teachers did require typing. From the experience the teacher has had he can do much to prepare the student for a job in an office. It is many times considered important for the teacher of typing to have office experience in order to be a more efficient typing teacher.

Table 4 shows the percentage of teachers who have had office work and from this number the percentage that had to type when holding this job. It also shows the average time the teachers have worked in offices.

TABLE 4  
OFFICE EXPERIENCE AND TIME WORKED BY TEACHERS

Class of School	Per cent with office experience	Per cent that required typing	Months worked
Fully Accredited	79	69	22.8
Minor Accredited	62	59	29
Graded and Consolidated	60	56	30.5



### Enrollment in Typing

Table 5 shows the average number of students enrolled in the different classes of schools and the average number of boys and girls enrolled in typing. It would seem that more students should be encouraged to take a course in typing for at least one year. The comparison between boys and girls taking typing is quite even with the girls being the larger number. It would seem beneficial for every student to take typing while in high school. Many students don't know what their life's work will be and typing could be a big factor in securing an occupation. Almost everyone will be able to make use of a typewriter sometime in their life if they only knew how to type.

TABLE 5

AVERAGE ENROLLMENT OF STUDENTS TAKING TYPING  
AND AVERAGE SCHOOL ENROLLMENTS

Class of School	Students enrolled in High School	Typing enrollment	
		Boys	Girls
Fully Accredited	138.5	11.8	18.6
Minor Accredited	41	5.7	6.5
Graded and Consolidated	32	4	5

## Teaching Practices

Sound teaching practices are very important if they are followed in a uniform manner. The teacher should take great care in setting up these practices so they may be of maximum benefit for the students. The practices listed in the following section are considered by many authorities as the most important.

Assignment practices- The teachers were given three choices as to what assignments they used in the teaching of typing. These were: Budget, Daily, and Contract assignments. Table 6 shows the percentage of teachers using the three plans stated in the questionnaire.

The budget assignment consists of giving the class so much work for a week or any given time and then making them responsible for finishing it on their own in that allotted time. This plan is very good if the class is able to work on their own without having the teacher reminding them to work all the time. Also, in this method there can be a wide spread in the class when the time limit is approximately half over. The fast students will be finished and the slow students may not be as far advanced as they should be.

The daily assignment is the most common lesson assignment because it is easy to keep the class together; and if there is any explaining to be done it can be done to the whole class and not to individuals when the problem arises.

This plan is practically always used during the beginning of the school year. Most of the books have lessons which can be finished in one day and the teacher follows the rules given in the textbook.

In the contract plan the students contract for so much work during a specified time. Individual differences can be taken care of in this plan but of course it will require more of the teachers time. The assignments will have to be of different lengths for the different students depending on how well they are doing in typing.

Approximately 55 per cent of all the teachers use the daily lesson plan. Seventy per cent of the teachers in the Fully Accredited schools use the daily lesson plan while only 44 per cent of the Graded and Consolidated schools use it. In the Graded and Consolidated schools 40 per cent of the teachers use the budget plan. Accordingly the contract plan is used by fewer of the schools.

TABLE 6

PERCENTAGES OF TEACHERS USING THE  
DIFFERENT TYPES OF LESSON PLANS

Class of School	Budget Plan	Daily Plan	Contract Plan
Fully Accredited	13	70	17
Minor Accredited	20	62	20
Graded and Consolidated	40	44	24

Testing practices- The teachers of typing use a variety of tests when grading their students. The more common test is the timed writing. Frequently a one minute timed writing is used to try to get the word average increased. The students are not so apt to make a mistake and it gives the student a good feeling to have his word average increased. Quite often to use a one minute timed writing is a good aid right after the opening exercises or finger gymnastics. A teacher should be careful not to have too long a timed writing before the students have typed long enough as not to make the fingers too tired.

A teacher should supervise the class closely to detect faulty techniques and to see that students are kept interested in the course. Keeping the students interested and building in them the desire to master the machine is a very important element in the teaching of typing.

Table 7 shows the percentages of schools using the various forms of tests. The table clearly indicates that teachers use more than one type of test with the timed tests being the most widely used.

TABLE 7  
PERCENTAGE OF TEACHERS USING THE DIFFERENT TESTS

Types of tests	Percentages		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Timed	75	56	60
Tests that accompany textbooks	56	50	60
Teacher made tests	44	35	36
Teacher devised problem situations	49	32	16

Two methods of evaluating students was stated in the questionnaire, straight copy and timed writing or the teachers could check the combination of both. It was found that the teachers most often use the combination of the two methods. It is a common practice to pick some lessons to have timed writings on and some to have straight copy typing. Straight copy means that the student copies directly from the textbook and then the errors are counted and he is graded on the number of mistakes he has made.

Evaluation practices- Table 8 shows how the teachers evaluate their students. The teachers mark either on word average or on the number of mistakes made in typing. Many of the teachers in the Fully Accredited schools indicated more than one choice.

TABLE 8  
PERCENTAGE OF TEACHERS EVALUATING  
STUDENT ACHIEVEMENT

Methods	Per cent		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Straight copy	79	9	8
Timed writing	37	0	12
Combination of both	90	91	80

Four types of errors were listed to see which one the teachers observed most. All of these errors are important for the teacher to guard against and to correct the student before the wrong habits are formed. The teachers observe the stroking technique most closely as these would be most detrimental if the student were to learn the keyboard incorrectly. Basic knowledge is also watched closely by the teachers. This would include the handling of the machine and operating it in the correct manner.

Table 9 shows the types of errors watched for most by the teachers. All of these errors are important but teachers will rank them in the order that they think they rank in the teaching of typing. It was found by the survey that the stroking technique is considered the most important.

TABLE 9  
TEACHER OPINIONS CONCERNING IMPORTANCE OF  
CORRECTING TYPES OF ERRORS

Types of errors	Per cent		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Manipulation	62	70	40
Basic Knowledge	78	65	72
Reading Copy	61	75	52
Stroking Technique	88	80	84

More teachers in the Fully Accredited schools require perfect copies than in the other two classifications of schools. If perfect copies are required too often it can be detrimental to the student because it may put too much pressure on the student; and if this is practiced the student may become careless.

Table 10 shows in percentages the number of teachers that require perfect copies and those that do not. The Fully Accredited school teachers require more perfect copies than the other two classes of schools.

TABLE 10  
 PERCENTAGES OF TEACHERS REQUIRING  
 PERFECT COPIES

Class of School	Per cent yes
Fully Accredited	70
Minor Accredited	27
Graded and Consolidated	35

One of the forbidden acts of typing, along with looking at the keys, has been that of erasing. For many years the eraser was prohibited in the typing room. Students were told that when they had made an error, they should go on and leave it, since nothing could be done about it. The possession of an eraser by a student seemed to warrant the assumption that he had the intention of using it, and students were warned to avoid even the appearance of evil by never bringing an eraser into the typing room. It was not uncommon for teachers to hold typed papers up to the light and to scan them for thin spots that might reveal that the student had committed the almost unpardonable crime of erasing.

Erasing practices- The attitude toward erasing has changed during recent years, and most textbooks now contain sections on how to erase. It is now recognized that, in an office, when an error is made, if the erasure can be



done so skillfully that it cannot easily be detected, it is better to make the correction than to type the paper entirely over again, with consequently loss of time and waste of paper. Many pre-employment tests, including Civil Service Examinations and those of the personnel department of various companies, require erasing if errors are made on letter tests. Some teachers, however, still neglect the subject.

It would seem that, since office typists do make errors occasionally, and since when they do, they erase, it would be wise to teach students the best methods of erasing and correcting so that they can make corrections efficiently.

Since erasurers are inevitable, erasing should be taught, and since errors occur early, erasing may well be taught early. However, erasing should not be taught during the first six weeks period of initial diffused response, but as soon as stress begins to be laid upon improvement in accuracy.

Table 11 shows the percentage of teachers who teach their students to erase and let them erase during lessons set aside for this purpose. Approximately 85 per cent of the teachers instruct their students in the procedure of erasing.

TABLE 11  
 PERCENTAGES OF TEACHERS TEACHING  
 ERASING TECHNIQUES

Class of schools	Per cent Yes
Fully Accredited	87
Minor Accredited	80
Graded and Consolidated	92

Use of Study Manual- Table 12 shows that approximately 75 per cent of the schools that teach typing use the study manual. The teachers can find the answer to many questions that he is in doubt about in this book. There are many occasions, whereby, the teacher will try to use some procedure of teaching which he isn't quite sure about. A simple glance at the study manual will explain the procedure for him.

TABLE 12  
 PERCENTAGES OF HAVING STUDY MANUALS

Class of schools	Per cent Yes
Fully Accredited	75
Minor Accredited	77
Graded and Consolidated	75

Table 13 shows that a very low percentage of the teachers let their students erase on assignments. The art of erasing should be taught to every student and used quite often so the student will be able to erase neatly. Hardly anyone can type very much without making a few errors. There should be certain lessons set aside for students to erase if mistakes are made. If many errors are made and neatness is stressed it will encourage the students to type more accurately. This procedure is not as easy as just circling errors when they are made.

TABLE 13  
PERCENTAGE OF TEACHERS PERMITTING  
STUDENTS TO ERASE

Class of schools	Per cent Yes
Fully Accredited	58
Minor Accredited	44
Graded and Consolidated	53

Speed versus accuracy- In the accuracy approach, students are taught that it is extremely important that the initial results be accurate, with little attention being paid to speed. This approach is illustrated by the common slogan, "Accuracy first--speed will take care of itself". Teachers have evidently felt that, if written

results were inaccurate, at the beginning, those errors would tend to be persistent. In this approach students are taught to typewrite carefully, painstakingly, and even hesitatingly if necessary, in order to attain so called 'paper accuracy'. In many cases, students have not only sacrificed speed, but they have developed faulty techniques in order to produce accurate copies. In recent years there has been a tendency for many teachers to challenge the accuracy approach and to substitute the slogan, "Right techniques and right pace will produce accuracy".

Table 14 shows the percentage of teachers that stress speed before they stress accuracy. Under this procedure the teachers believe that accuracy will be acquired through typing at a pace suitable to the student.

TABLE 14  
PERCENTAGE OF TEACHERS STRESSING  
SPEED BEFORE ACCURACY

Class of schools	Per cent Yes
Fully Accredited	30
Minor Accredited	12
Graded and Consolidated	8

Use of charts- Teachers often use a large wall chart showing the letters in order to teach the locations and reaches. It is commonly assumed that, from this chart, the student can get an accurate mental picture of his keyboard, but this is highly doubtful. The chart is much larger than the keyboard of the machine; the letters on it look as if they are two to three inches wide; and the distance between them look as if they were several inches. Furthermore, the chart gives the impression that the keys are on the same level, although they are not.

The teacher should probably teach key locations and key manipulations something like this. He should tell the students which key is to be struck and have them locate it on the keyboard and determine which finger should strike it. Then he should have the students, by sight, notice the distance and direction of the reach, and have students move the finger from the home key to the reach key several times, while looking at it and while paying close attention to the muscular sensations involved, because the student will need to learn the muscular movements involved so that he can later make those reaches without looking.

If at any time the student is found to be making too many mistakes, he may be told that he must go back to the sight method until he learns the locations and reaches better. By suggesting that the sight method is 'going back', the student is lead to feel that looking is a sign

of weakness and a process that is reserved for the beginner only. The period of time for looking at the keyboard is a brief one and doesn't develop a habit of looking.

Table 15 shows that there is a large percentage of teachers using the keyboard chart in the teaching of typing. Most of these teachers leave the keyboard chart up during the course of the year.

TABLE 15  
PERCENTAGES OF TEACHERS USING  
THE KEYBOARD CHART

Class of schools	Per cent Yes
Fully Accredited	95
Minor Accredited	85
Graded and Consolidated	76

The question asked on how many typing rooms have a dictionary available for typewriters was answered as was expected. Many of the rooms had three or four dictionaries but few had one for each typewriter. There are very good reasons why dictionaries should be at each typewriter. Some of these reasons are: Typing is usually taught in the Sophomore year and the student hasn't used the dictionary too often and this would encourage the use of it. Many times when the student has trouble spelling a word he would look the word up if a dictionary was available for him.

In typing there are many instances when a word will have to be hyphenated and if a dictionary is available the student will hyphenate the word correctly instead of just guessing at it. Table 16 shows the percentage of schools that have a dictionary available at each typewriter. The Graded and Consolidated schools stress the use of dictionaries more than the other schools.

TABLE 16  
PERCENTAGES OF SCHOOLS HAVING A DICTIONARY  
AVAILABLE AT EACH TYPEWRITER

Class of schools	Per cent Yes
Fully Accredited	12
Minor Accredited	23
Graded and Consolidated	36

Students should always be encouraged to type outside of class after they have been taught the keyboard. It is sometimes detrimental for students to type without being observed by their teacher before they learn the keyboard because of wrong habits they might form. It is usually a good policy to have a student only use one typewriter until he has mastered the procedure of typing to a certain degree. It will almost always be found that a student can not type on someone else's typewriter as he can on his own. If different makes of machines are used each student should

be given an opportunity to type on them. If a student is typing outside of class the teacher should watch the student's procedure in class to make sure that he is using the correct procedure. Table 17 shows the high percentage of teachers who encourage their students to type outside of class. Practically all of the Minor Accredited school teachers encouraged typing outside of class. The other percentages were also high.

TABLE 17  
PERCENTAGE OF TEACHERS ENCOURAGING  
TYPING OUTSIDE OF CLASS

Class of schools	Per cent Yes
Fully Accredited	85
Minor Accredited	97
Graded and Consolidated	96

The State Course of Study is not followed to any great extent in the teaching of typing. Many times a teacher can do a better job by deviating from what the State Course of Study says and use some local problems, or by using a combination of different methods. The teacher should use the techniques which will better help his individual class or classes.

Table 18 shows the percentage of teachers who follow the State Course of Study in the teaching of their classes.



Those teachers that answered this question no, do not use the State Course of Study at all during the year.

TABLE 18  
PERCENTAGES OF TEACHERS USING THE  
STATE COURSE OF STUDY

Class of schools	Per cent Yes
Fully Accredited	40
Minor Accredited	53
Graded and Consolidated	68

Most teachers also deviate from the methods set up by the authors of the textbooks. Most methods set up in the book are for the ideal situations which is practically impossible to be followed by the teacher. For instance the book will only set so much time for a certain part of the lesson and the teacher may think the students need more time or it could be the reverse of this. It is quite helpful for the teacher to follow the book quite closely during the first part of the year when the students are learning the keyboard.

Table 19 shows the number of teachers who follow the textbook all during the year to teach typing. Those that answered this question yes did not deviate from the text and therefore generally would not use any individual problems concerning something taking place in the community.

TABLE 19  
 PERCENTAGES OF TEACHERS TEACHING  
 EXACTLY AS OUTLINED IN BOOK

Class of schools	Per cent Yes
Fully Accredited	13
Minor Accredited	23
Graded and Consolidated	44

There are many teachers who have another class while they are teaching typing. Regardless of the fact there are only a few the procedure is wrong and should not be used. There has not been enough emphasis on the importance of typing. As long as typing is offered it should be taught in the same procedure as any other class. Many people think that the procedure of learning typing is just practice which is very much incorrect. A good typing teacher will continually observe his class to see if any student is making a mistake, no matter how minor a mistake, and correct it. A teacher cannot do this if he is responsible for another class.

Table 20 shows the percentage of teachers who have another class at the same time as they have typing. The medium sized schools have the greatest percentage and the smaller schools seem to watch this procedure closer to see that the students do get the instruction they need.

TABLE 20

PERCENTAGES OF TEACHERS RESPONSIBLE FOR  
ANOTHER CLASS WHILE TEACHING TYPING

Class of schools	Per cent Yes
Fully Accredited	8
Minor Accredited	12
Graded and Consolidated	4

A great majority of the schools have the typewriters available for personal use. Many times this cannot be permitted but ideally it would be very beneficial if the students could use the typewriters during a study period of a short time after school if it could be arranged. Most students are eager to become very efficient at typing and if encouraged they will reach their goal. After the keyboard is learned it takes practice for the students to get their word average up and also to do work with the minimum of errors. Table 21 shows that approximately 85 per cent of the schools have the typewriters available for personal use by the students.

TABLE 21

AVAILABILITY OF TYPEWRITERS  
OUTSIDE OF CLASS

Class of schools	Per cent Yes
Fully Accredited	88
Minor Accredited	88
Graded and Consolidated	80

The first year word average was approximately the same in all three classes of schools. In an article by Harold H. Smith<sup>1</sup>, typing author, there are these standards. A September beginner should type 30 gross words a minute with no more than an error a minute by November. Students should always know the goals they are to achieve. These goals will differ with different students. Table 22 shows that the teachers expect to have a word average of about 40 words per minute for one year of typing.

TABLE 22

WORD AVERAGE AT END OF ONE YEAR

Class of schools	Per cent Yes
Fully Accredited	39
Minor Accredited	41
Graded and Consolidated	38.5

<sup>1</sup>Harold H. Smith, "Techniques and Tips for Teachers of Typing", Business Teacher, November 1949, P. 30

Table 23 shows the typing standards as set up by  
Harold H. Smith.

TABLE 23  
MINIMUM STANDARDS OF ACHIEVEMENT ON  
STRAIGHT COPY TIMED WRITING

End of term	Length of test	Low level		High level	
		gross	errors per minute	Gross	errors per minute
first	5 min.	25	with 1.0	40	with 1.0
		or		or	
		20	with .6	35	with .6
second	10 min.	35	with 1.0		
		or			
		30	with .5	45	with .5
third	10 min.	45	with 1.0		
		or			
		40	with .5	50	with .5
fourth	10 min.	50	with 1.0		
		or			
		45	with .5	60	with .5

## SUMMARY

The teachers of typing in the three classes of schools have approximately the same number of years of college education. The Fully Accredited and the Minor Accredited Schools have 18 per cent while the Graded and Consolidated Schools have 32 per cent of their teachers with Masters Degrees. Many other teachers of these schools have done work toward a Masters Degree.

Most of the teachers have more years of general teaching experience than they do in the specific field of typing. According to the number that have taken a methods course this would indicate that the teachers have started teaching the course even though technically they were not qualified. Many of these teachers have had office experience that required typing which could help them greatly in teaching the subject.

The teachers usually followed the same teaching practices but rated them differently in importance. This is not uncommon because teachers will have to teach according to what their class can do. Outside material must be used because some of the teachers followed neither the course of study or the textbook. If regular office experience were given in the course it would prepare the students for future work.

Some of the teachers required perfect copies but at the same time they would let their students erase if

they made mistakes. It seems rather odd that a teacher should expect a student to type perfect copies, which tends to put too much strain on the students. Many of the teachers have had office experience which required typing and it would seem that these teachers would know the importance of erasing in the correct manner. Seventy per cent of the Fully Accredited schools require perfect copies while only 27 per cent of the Minor Accredited schools require perfect copies. About 90 per cent of the Graded and Consolidated schools teach erasing techniques and 80 per cent of the Minor Accredited schools do so.

Approximately 55 per cent of the teachers use the daily lesson plan. Seventy per cent of the teachers in the Fully Accredited schools use the daily lesson plan while only 44 per cent of the Graded and Consolidated schools use it. In the Graded and Consolidated schools 40 per cent of the teachers use the budget plan of assignment.

Many methods of testing are used which is a good sign that the students must learn how the typewriter works besides just typing on it. The majority of the teachers use the timed tests most and teacher made tests the least. The Fully Accredited schools use the most tests and the Graded and Consolidated the least. Approximately 75 per cent of the teachers check for all kinds of errors.

The keyboard chart is used by approximately 80 per cent of the teachers. According to the more recent studies of typing the charts give the students false impressions because of the size of the charts. Ninety five per cent of the Fully Accredited schools use the chart and 76 per cent of the Graded and Consolidated schools use the chart.

Ninety two per cent of the Graded and Consolidated schools stress accuracy before speed and 70 per cent of the Fully Accredited schools follow this procedure. According to recent studies in typing speed should be taught first and accuracy will follow.

Dictionaries are not widely used as an aid to the students. Approximately 25 per cent of the typing rooms have dictionaries at each typewriter. The Graded and Consolidated schools have 36 per cent of their schools equipped in this manner and only 12 per cent of the Fully Accredited schools have dictionaries at each typewriter.

Approximately 95 per cent of the teachers encourage typing outside of class periods. Of this 95 per cent about 85 per cent have the typewriters available for outside typing. In the Minor Accredited schools 97 per cent of the teachers encourage outside typing and in the Fully Accredited schools 85 per cent of the teachers encourage outside typing.



About 10 per cent of the teachers are responsible for another class at the same time they teach typing. Twelve per cent of the Minor Accredited teachers have other classes at the same time as typing and in the Graded and Consolidated schools 4 per cent of the teachers teach under this handicap.

Teachers usually use different materials in planning their methods of teaching. The Minor Accredited schools rely mostly on the Study Manuals while the Graded and Consolidated schools use the State Course of Study and the text book the most. These responses were quite similar however.

As a general rule the teachers of the Graded and Consolidated schools use the various teaching practices more than the other two classifications of schools. The Minor Accredited schools usually did not rate the teaching practices as high or as low as the other two classifications. The Fully Accredited school teachers rated a few of the practices high but they seem to use more of their own individual methods in teaching the course.

The teaching practices are very important in determining what teaching devices, aids, or techniques the teachers will use. The teacher first of all will have to set up the practices he wishes to follow then he will have to determine what aids will be needed. a poor method of teaching rhythm. Due to the fact that the eyes are not depressed accuracy of results cannot be benefited by this

## CHAPTER III

### TEACHING DEVICES, AIDS, OR TECHNIQUES

In the last chapter it was determined which practices were the most important. The teaching practices used in Chapter II by the teachers will determine the teaching devices to be used.

Most of the devices that are stated in Chapter III are important in the teaching of typing. If most of the devices are used by the teacher the student will have a much better chance of learning the subject. Some devices that are no longer considered important and sometimes considered detrimental are also stated.

Chapter III explains the devices, aids, or techniques used by the teachers to keep the recitation interesting, to provide motivation, to secure competition, to develop a program for testing, and other miscellaneous uses. Some of the devices, aids, or techniques are now considered old-fashioned, and are being thrown out by the teachers, however, the majority of these considered here will play a prominent part in the teaching of typing.

In the drill with the keys locked the students merely touch the keys or letters they wish to type. There is no impression made upon the paper. This method does not teach accuracy and it can be considered a poor method of teaching rhythm. Due to the fact that the keys are not depressed accuracy or rhythm cannot be benefitted by this

technique. This technique can be used to teach concentration in typing which is an important factor.

Table 24 shows the percentage of schools who have used the technique and who are now using this technique. It also shows how the teachers classify the technique. Most of the teachers have used the technique but very few use it now. This technique is considered ineffective by the majority of the teachers.

TABLE 24  
DRILLS WITH KEYS LOCKED

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used technique	80	35	44
Now using technique	8	23	8
Is technique very effective	3	5	6
Is technique generally effective	20	10	70
Is technique ineffective	72	85	23

Most of the teachers in North Dakota are now using wall charts and diagrams in the teaching of typing. Wall charts are not considered a good aid because of the size of the chart in comparison with the typewriter keyboard. Some authors say that it is detrimental for the student to look at the chart and then try to find the

letter on the keyboard. The authors also say that the chart makes the keyboard look flat which makes it complicated for the student to find the letter on the keyboard and that it gives the student a false impression of the keyboard. Some students rely on the chart too much in their typing if it is left up for the year. After the teacher has finished showing the students their hand placement on the keyboard there is not significant use for the keyboard chart.

Table 25 shows the percentage of teachers who leave the chart up for the year. It also shows how effective they believe this technique to be in the teaching of typing. A large percentage of the teachers do not use the chart any longer which is in accordance with authorities of typing. Approximately 10 per cent of the teachers indicated this aid or technique as ineffective.

TABLE 25

## WALL CHARTS AND DIAGRAMS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used technique	33	23	20
Now using technique	67	56	48
Is technique very effective	41	40	18
Is technique generally effective	49	51	70
Is technique ineffective	10	9	12

Use of Unison drills- Many of the teachers have used or are using the teaching device of unison syllable drills. An example of this is frf or efe. The teacher dictates the letters, usually in groups of three for the same finger, and the student types them as the teacher is dictating. At first the rate of speed is slow and is speeded up as the students progress in typing. The teacher has to dictate so the majority of the class can type all of the groups dictated. Many teachers criticize this aid because of these reasons: can't be heard over the noise of the typewriters, can't dictate for all the students, and it is sometimes difficult to get the full cooperation of the class.

Table 26 shows the percentage of the teachers that have used unison syllable drills and the percentage that are now using it. Percentages are also given according to the effectiveness of this aid. This aid is now being used by approximately half of the teachers. Most of the teachers consider it generally effective. Approximately 12 per cent indicate the aid as ineffective.

TABLE 26  
UNISON SYLLABLE DRILLS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	50	36	28
Now using aid	50	32	32
Is aid very effective	42	35	33
Is aid generally effective	47	61	53
Is aid ineffective	11	4	14

Approximately 40 per cent of the teachers answering the questionnaire are now using the device of unison word drills. This device is accepted as effective in teaching typing. Short and common words are dictated to the class such as where, what, or why. The same procedure may be used for this device as is used in teaching the unison syllable drills. If common words are used the students can more easily keep up when words are used instead of just letters. The students should be instructed that they should leave out words if they cannot type as fast as the words as dictated but they should always be encouraged to keep up with the dictator. This practice should only take a very short part of the period because it may make the slower students nervous trying to keep up with the teacher.

Table 27 shows that 31 per cent of the teachers have used the aid and 36 per cent are now using the unison word drills. The largest percentage of teachers believe this aid to be very effective and generally effective in teaching typing. About 10 per cent indicated it as ineffective.

TABLE 27  
UNISON WORD DRILLS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	54	23	16
Now using aid	46	36	36
Is aid very effective	43	45	38
Is aid generally effective	43	45	53
Is aid ineffective	14	10	9

Teacher demonstration- Teacher demonstration is very effective method in teaching typing. The teacher should have the typewriter on a stand so every student can see the typewriter where the demonstration is being held. There are many teachers who do not show the students actually how the typewriter works but they will explain it to them. The students will learn much faster if they can actually see what is taking place.

Table 28 shows that 55 per cent of the teachers are now using teacher demonstration as an aid in teaching typing. There is a wide range of thought as to its effectiveness in helping the students in learning to type, but approximately 55 per cent indicated it is very effective. About 8 per cent indicated it as ineffective with the majority being from the Graded and Consolidated schools.

TABLE 28  
TEACHER DEMONSTRATION

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	30	27	36
Now using aid	70	50	40
Is aid very effective	64	60	39
Is aid generally effective	31	38	48
Is aid ineffective	5	2	13

Use of speed graphs- Speed graphs are used by approximately 65 per cent of the teachers of typing. The speed graphs can be obtained from book companies or from some of the business colleges. The speed graph can be used as a device to have the students try for a better word average. When using this device it is wise to urge the students to try for accuracy. When a student has attained the



goal of accuracy then encourage the student to type a little faster but still stress accuracy. Some teachers use the maximum goals of each student as a partial basis for a six week mark or for a final mark. If this method is used it will not take into consideration the individual differences among the students.

Table 29 shows that the majority of the teachers are now using this aid and also the greater percentage of teachers regard this aid as very effective in the teaching of typing.

TABLE 29  
USE OF SPEED GRAPHS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	27	27	8
Now using aid	73	50	76
Is aid very effective	54	58	52
Is aid generally effective	39	38	43
Is aid ineffective	7	4	5

Use of films- In the teaching of typing, films are used comparatively little in North Dakota. Many times when films are used the teachers do not tell the students what to watch for in the film, therefore, this method does

not teach the students much unless they are very observing. There are many times where the teacher can do a better job of teaching procedure of typing by his own demonstration. The films will only allow so much time to certain phases where the teacher will find the need to spend much more time. It was found from the questionnaire that many of the teachers have not given the films a chance to prove their worth in the teaching of typing. The reason for this may be that they do not have facilities to show films in the smaller schools, or the fault of the teacher for not taking it upon himself to order the films. The teacher should take into consideration that the change from typing every day might be very beneficial for the students. There has to be some variety in typing as in any other class.

Table 30 shows that approximately half of the teachers are now using this aid. The majority of the teachers regard this aid as generally effective.

TABLE 30  
USE OF FILMS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	58	18	28
Now using aid	42	15	8
Is aid very effective	30	36	13
Is aid generally effective	63	54	75
Is aid ineffective	7	10	12

Dictating at the typewriter is not widely used by the teachers of typing. Many times this device is very hard to use. In cases where there are many typewriters the students cannot hear the teacher when he is dictating. Dictating does not take in the different word levels of the students. It can be harmful to dictate at a speed in excess of the students thereby making them nervous and as a result they make many mistakes and become careless. This aid may be used after the students have just learned the keyboard and are all typing at more the same speed. Familiar material would give better results but dictate it at a rate which is average.

Table 31 shows that approximately 33 per cent of the teachers have used this aid or are using this aid

now. Approximately 70 per cent of the teachers believe this aid to be generally effective.

TABLE 31  
DICTATING AT THE TYPEWRITER

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	60	21	20
Now using aid	40	23	32
Is aid very effective	20	20	23
Is aid generally effective	72	66	69
Is aid ineffective	8	14	8

Rapid stroking of the home row is a widely used means of an opening exercise aid. This is a means of getting the fingers limbered up and at the same time it aids students in learning the keyboard better. The home row has to be mastered before the student can learn the rest of the keyboard. In the survey it was learned that this is a greatly accepted aid by the teachers of typing. The teacher can also have the students practice typing the alphabet after they have become well adjusted to the home row.

Table 32 shows the percentage of teachers in regard to the use of this aid. Approximately 48 per cent consider this aid generally effective and approximately 40 per cent

believe it to be very effective. This aid is now being used by 42 per cent of the teachers.

TABLE 32  
RAPID STROKING OF HOME ROW

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	36	27	28
Now using aid	64	30	32
Is aid very effective	39	42	36
Is aid generally effective	50	47	50
Is aid ineffective	11	11	14

Daily finger gymnastics (finger exercises independent of the typewriter) is another method or aid as a warm-up drill. In many cases typing teachers often neglect the importance of warm-up drills. Students should be taught first of all to limber up their fingers and then to do some other warm-up drill on the typewriter. There are examples of finger gymnastics at the beginning of the typing text so all the teacher has to do is to show them how it is done and the students will do the rest.

Table 33 shows that approximately 55 per cent of the teachers are now using the aid of daily finger gymnastics

in the teaching of typing. This aid is also considered generally effective by 48 per cent of the teachers.

TABLE 33  
DAILY FINGER GYMNASTICS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	41	23	32
Now using aid	59	50	52
Is aid very effective	36	40	20
Is aid generally effective	48	40	55
Is aid ineffective	16	20	25

Use of speed contests- Speed contests can many times be used as an incentive for students to do a better job and more accurate work for the sake of reaching a higher rate. A teacher has to convince the student that not only speed is needed but also accuracy is a vital factor. Too much speed is also detrimental in many cases. A slow typist can sometimes become disheartened because of his slow rate of speed if tests are used too often. The teacher should tell the students that he doesn't expect everyone to achieve the same corrected words per minute goal. Each student has to type at his or her own speed. The teacher will soon find out how fast the various students can type

and he should work from there. The teacher should observe the slow students very closely to see if there is some aid he can give them in order to better their speed.

Table 34 shows that 63 per cent of the teachers are now using speed contests in their teaching. This aid is also considered very effective by 53 per cent of the teachers.

TABLE 34  
SPEED CONTESTS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	30	23	12
Now using aid	70	53	60
Is aid very effective	55	61	44
Is aid generally effective	37	31	56
Is aid ineffective	8	8	0

Use of rhythm drills- Rhythm in typing has long been accepted as an essential by many teachers. Teachers have used metronomes, typepacers, phonograph records, and various tapping devices to teach students rhythm. Over 20 years ago, a French investigator, J. M. Lahy, devised a machine to measure, in hundredths of seconds, the time taken to strike various typewriter keys. His conclusions about rhythm were that students who actually do type rhythmically can never be fast typists. The reasons for

this is that it takes a student longer to strike a key off the home row than if the key is located on the home row.

Within a single word, the expert may type at various paces. For instance, the word may start with a common prefix that he types at high speeds. There may be a syllable requiring a single finger to strike two consecutive letters, one on the lower row and one on the top row, such as ce, one of the slowest in sequences. For such a sequence he must slow down. The expert adjusts his speed to the typing traffic, never typing at the spasmodic level, always maintaining full control, yet typing at the greatest speed that the varying typing combinations, or traffic permits.

Some people call this kind of typing fluency, continuity, or flowing rhythm which is the kind of typing that should be taught. Rhythm devices used in the classroom can never be made to fit the needs of all of the class. If the device is set at a given speed, of say 100 strokes a minute, there will be some students who can type faster than that, and they must either slow down or fail to maintain rhythm. Other students cannot make 100 strokes a minute, and so they type spasmodically, out of control, in order to try to keep the rhythm.

Table 35 shows that rhythm is still considered an important element in typing by 35 per cent of the teachers.



The teachers of the smaller schools do not emphasize this aid as much as the Fully Accredited school teachers do.

TABLE 35  
RHYTHM DRILLS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	42	23	12
Now using aid	58	15	32
Is aid very effective	33	38	45
Is aid generally effective	48	38	55
Is aid ineffective	19	24	0

Analyzing individual errors by means of charts does not receive much attention. There may be some factors which prevents this such as lack of time or experience, but this is too important an aid to leave out. Teachers should continually look for errors made by students and correct them before they get to be a habit. The first impression that the student gets is usually the one that stays with him. It is a good procedure for the teacher to have a letter chart where he can immediately write down the errors of the students. On this chart he should put down the key the student hits and the key that should have been struck. The most common error occurs when the 1 and

e are struck. These two keys are struck with the same finger of each hand, and it can be corrected if noticed when the student is still a beginner.

Table 36 shows that the teachers of the Fully Accredited schools use this aid approximately twice as often as the smaller schools. This aid is most often considered generally effective by the teachers.

TABLE 36  
ANALYZING INDIVIDUAL ERRORS  
BY MEANS OF CHARTS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	40	12	24
Now using aid	60	27	28
Is aid very effective	34	38	46
Is aid generally effective	46	62	46
Is aid ineffective	20	0	8

Displays of model letters are not too widely used according to the answers received. Model letters can very easily be used as an incentive for students to do better work. Most students feel honored to have their work displayed. Besides counting the errors and punctuation, evenness of type should be a great factor.

Table 37 shows that less than half of the teachers use this aid. Although this aid is not used by the majority

of the teachers those answering this aid usually consider it very effective. Only 4 per cent indicated that this aid is ineffective.

TABLE 37  
DISPLAYS OF MODEL LETTERS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	41	20	24
Now using aid	59	39	28
Is aid very effective	58	45	38
Is aid generally effective	39	55	53
Is aid ineffective	3	0	9

Typing with the ribbon on stencil received a wide degree of answers. The purpose of this aid is to merely teach the students rhythm and it will not show if the students make any errors. It is believed that if the student does not see his mistakes he may be inclined to increase his speed or acquire a more even stroking technique. This aid can many times be used for the slower students in trying to bring their word average up or those students who are always afraid of making mistakes.

Table 38 shows that 32 per cent of the teachers are now using this aid with the Fully Accredited school

teachers using it the most. Sixty seven per cent of the Minor Accredited school teachers consider this aid as generally effective as compared to 54 per cent of the Fully Accredited school teachers.

TABLE 38  
TYPING WITH RIBBON ON STENCIL

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	60	23	32
Now using aid	40	27	28
Is aid very effective	18	23	13
Is aid generally effective	54	47	67
Is aid ineffective	28	30	20

Use of remedial drills- Many of the teachers are using remedial drills and practice drills to develop accuracy. It is many times very beneficial to have a student type something that he is familiar with so he can stress more on accuracy. This method will also help students build up their speed. Table 39 shows that 86 per cent of the Fully Accredited school teachers use this aid as compared to 69 per cent and 64 per cent of the Minor Accredited and Graded and Consolidated teachers respectively. The majority of the teachers consider this aid very effective.

TABLE 39  
 REMEDIAL DRILLS AND PRACTICE DRILLS  
 TO DEVELOP ACCURACY

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	14	23	8
Now using aid	86	69	64
Is aid very effective	45	52	72
Is aid generally effective	47	45	22
Is aid ineffective	8	3	6

Manipulation drills are being used by many of the teachers to help the students become more acquainted with the typewriter. This drill consists of the teacher giving the students 10 or 15 second timed writings and at the end of each timed writing he instructs the students to throw the carriage and start the sentence over again. This procedure keeps up for one or two minutes at the time. The students get so they can throw the carriage in the minimum of time if this is practiced often. One of the reasons why students can not get a fast rate of speed is because they waste too much time throwing the carriage and getting their fingers back on the home row. Practice using the shift key is another form of manipulation drill.

Table 40 shows that 53 per cent of the teachers use manipulation drills in teaching the course. Approximately 45 per cent of the teachers believe it is either very effective or generally effective.

TABLE 40  
MANIPULATION DRILL

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	30	23	20
Now using aid	70	45	44
Is aid very effective	47	47	37
Is aid generally effective	50	47	50
Is aid ineffective	3	6	13

The giving of awards and medals to students often encourages the student to do better work and to type more efficiently in order to qualify himself for an award. These awards are usually given to students who attain maximum words per minute in one, five, ten or more minutes of timed writings. The student is given a pin with the word average he or she has attained printed on it.

Table 41 shows that 57 per cent of the Fully Accredited school teachers give awards to their students as compared to 6 per cent of the Minor Accredited school

teachers and the Graded and Consolidated school teachers do not practice this at all. Even though there are many teachers who do not use this aid it is considered very effective.

TABLE 41  
AWARDS AND METALS

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	43	69	32
Now using aid	57	6	0
Is aid very effective	42	50	12
Is aid generally effective	27	25	50
Is aid ineffective	31	25	38

Displaying materials- The teacher should often display materials that the students have prepared. These displays can be of any nature the teacher deems worthy of displaying. A student who does good work and if it is recognized, will keep doing good work, but if it is not recognized he might just fall down because of lack of work to keep him interested in the subject.

Table 42 shows that again the Fully Accredited school teachers use this aid more than the teachers of the smaller schools. This aid is also considered to be generally effective by the majority of the teachers.

TABLE 42  
DISPLAYS OF STUDY PREPARED MATERIAL

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	33	21	28
Now using aid	66	30	16
Is aid very effective	49	30	27
Is aid generally effective	51	64	54
Is aid ineffective	0	6	19

The teacher can save himself many headaches if he keeps an individual progress chart of each student that he teaches. From this individual progress chart he can tell what is wrong with the students typing, how it can be improved, and also what mark this person should receive. This chart should include everything that is important in typing such as the speed attained, perfect papers, maximum number of errors in timed writings, what letters does he make the most mistakes on, and how fast he has progressed from the last six weeks. An individual progress chart is very handy to have around when a parent comes to see the teacher about the mark of his or her child. The teacher can also use this progress chart to keep track of the lessons the student has handed in and those



he has not. The teacher should never let the student get far behind in typing the lessons.

Table 43 shows that approximately 55 per cent of the teachers are now using individual progress charts. This aid is most often considered generally effective, but also many teachers consider it very effective.

TABLE 43  
INDIVIDUAL PROGRESS SCALE OF CHART

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	25	23	4
Now using aid	75	33	56
Is aid very effective	41	47	46
Is aid generally effective	54	53	54
Is aid ineffective	4	0	0

Composing- The teachers believe that composing at the typewriter is generally effective in the teaching of typing. Some material that the student is familiar with should be used so he can type without having to pause too much. The subject matter might well be chosen by the student and not assigned by the teacher. It will be quite common for the student to leave out words and to misspell words quite often when this method is first introduced. After this method has been used for a period of time or when

the students become acquainted with this sort of work have them type letters or other material that they are not familiar with.

Table 44 shows that composing at the typewriter is not often used by the teachers. The teachers as a whole do not agree whole heartedly as to the effectiveness of this aid, but it is considered quite often as generally effective.

TABLE 44  
COMPOSING AT THE TYPEWRITER

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	36	17	20
Now using aid	64	23	28
Is aid very effective	37	14	16
Is aid generally effective	43	72	59
Is aid ineffective	20	14	25

There are very few teachers who are now using music to teach their students rhythm. The teachers will use different records with different rhythms and the students will type according to the record. As was stated before concerning typewriters this procedure has the same faults. Some of the students like to have this aid used because

of the recreation it furnishes. This aid, if used at all, should be kept at a minimum. The students will have to be watched closely so the teacher is sure that this is not a waste of time.

Table 45 shows that music is not used by many of the teachers in teaching rhythm. The majority of the teachers consider this aid as being ineffective.

TABLE 45  
MUSIC TO TEACH RHYTHM

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	53	23	32
Now using aid	47	0	4
Is aid very effective	30	27	0
Is aid generally effective	40	0	44
Is aid ineffective	30	73	56

Timed writings- The Fully Accredited school teachers use the aid of timed writings quite extensively, but only about half of the Minor Accredited and Graded and Consolidated school teachers use it. The teachers are of the belief that the one minute timed writing is very effective in the teaching of typing. In using this aid effectively the teacher should stress both speed and accuracy.

Table 46 shows that there are more Fully Accredited teachers using this aid than the other teachers. This aid is also considered very effective by the majority of the teachers.

TABLE 46

## TIMED SENTENCE WRITING

Method	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Have used aid	18	20	16
Now using aid	82	53	56
Is aid very effective	68	72	27
Is aid generally effective	29	20	66
Is aid ineffective	3	8	7

## SUMMARY

Chapter III shows the percentage of teachers who use the various devices, aids, or techniques in the teaching of typing. Most of the teachers have used all the aids at one time or another but many of them have eliminated some of these because they considered them ineffective.

It is true that some aids can be used to take the place of others but it would be well to use every aid for a short time to acquaint the students with them. Every aid is put in the book for a purpose and the teachers should use them for this reason.

Some of the teachers use very few of these aids in their teaching procedure and it would seem that the students could miss much of the importance in typing.

The use of remedial drills and practice drills to develop accuracy is rated first by the Fully Accredited and the Minor Accredited school teachers and second by the Graded and Consolidated school teachers.

The use of timed sentence writings are considered as second in importance by the Fully Accredited school teachers and as fifth by the Minor Accredited and Graded and Consolidated school teachers.

The aid of individual progress scale charts were rated as third in importance by the Fully Accredited school teachers, fourth by the Graded and Consolidated school teachers, and the Minor Accredited school teachers did not include these in their first ten.

The use of speed graphs were rated third by the Graded and Consolidated school teachers, fourth by the Fully Accredited school teachers, and fifth by the Minor Accredited School teachers.

The practice of teacher demonstration was rated second by the Minor Accredited and Graded and Consolidated school teachers and fifth by the Fully Accredited school teachers.

The use of speed contests were rated fourth by the Minor Accredited school teachers, sixth by the Fully Accredited school teachers, and eleventh by the Graded and Consolidated school teachers.

The aid of manipulation drills were rated seventh by the Fully Accredited school teachers and eighth by the Graded and Consolidated and Minor Accredited school teachers.

The aid of wall charts and diagrams were rated second by the Minor Accredited school teachers, seventh by the Graded and Consolidated school teachers, and eighth by the Fully Accredited school teachers.

The use of displays of student prepared material was rated ninth by the Fully Accredited and the Minor Accredited school teachers but it was not included in the choice of the first ten by the Graded and Consolidated school teachers.

The technique of rapid stroking of home row was rated as tenth by the Fully Accredited school teachers but it was not included by the Minor Accredited and Graded and Consolidated school teachers.

The use of daily finger gymnastics was rated sixth by the Graded and Consolidated school teachers, seventh by the Minor Accredited school teachers, and the Fully Accredited school teachers did not rate it.

The use of unison word drills were rated tenth by the Minor Accredited and Graded and Consolidated school teachers but the Fully Accredited teachers did not rate it.

Table 47 shows how the teachers rated the more important skills. Ten of the highest rated skills were taken from each classification of schools and in the table these skills are compared as to their importance.

As a general rule the teachers rated the same skills as their first ten choices of importance. It is rather difficult to ascertain the importance of the skills listed in the table. These skills are all important in the teaching of typing but many times it is a personal opinion as to their importance.

It was found earlier that the Graded and Consolidated teachers are not as qualified as the other teachers, but according to the results of the table they generally use the same devices, aids, or techniques in their teaching.

TABLE 47

## RATING OF TEACHING DEVICES, AIDS, OR TECHNIQUES

Teaching devices, aids, or techniques <sup>a</sup>	Fully Accredited	Minor Accredited	Graded and Consolidated
1.	1	1	2
2.	2	5	5
3.	3	x	4
4.	4	6	1
5.	5	4	9
6.	6	3	3
7.	7	8	8
8.	8	2	7
9.	9	9	x
10.	10	x	x
11.	x	7	6
12.	x	10	10

a. 1. Remedial drills and practice drills to develop accuracy, 2. Timed sentence writing, 3. Individual progress scale chart, 4. Speed graphs (charting the speeds of individual students), 5. Teacher demonstration, 6. Speed contests, 7. Manipulation drills (calling the throw, shift key drill), 8. Wall charts and diagrams, 9. Displays of student prepared material, 10. Rapid stroking of home row, 11. Daily finger gymnastics (finger exercises independent of typewriter), 12. Unison word drills (teacher dictates words as what, where, etc.)



## CHAPTER IV

### SKILLS DEMONSTRATED

Chapter IV explains the skills that are demonstrated and when they are demonstrated. It was asked in the questionnaire whether the teacher demonstrated the skill when the skill was first given, occasionally during the year, or frequently during the year. The skills mentioned in Chapter IV are considered very important if the student is to become proficient in typing. There are more skills but these are considered the most important.

Margin adjustment- Practically all of the teachers answered the question on the teaching of margin adjustments. Most of the teachers demonstrate this procedure occasionally during the year. Most generally there are many makes of typewriters in the room which would warrant occasional demonstrations. Approximately 12 per cent of the teachers do not demonstrate the skill after it has once been introduced. It is very beneficial for the teacher to have the students exchange typewriters so they will learn to set the margins on more than one make of typewriter.

Table 48 shows the percentage of teachers who answered the question on margin adjustments. About 55 per cent of the teachers demonstrate this skill occasionally during

the year, 28 per cent demonstrate it only when it is introduced, and about 17 per cent demonstrate the skill frequently during the year.

TABLE 48

## MARGIN ADJUSTMENTS

When demonstrated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	90	97	100
Only when introduced	28	26	32
Occasionally	54	58	52
Frequently	18	16	16

Carriage return- The majority of the teachers demonstrate the art of throwing the carriage occasionally after it has been introduced. It is a wise procedure to keep reminding the students to throw the carriage correctly. The students often waste much time in timed writings and in straight copy work due to the fact they do not use the correct method. The student should be taught to throw the carriage return lever only part way and the momentum will carry it the rest of the way. Care should be exercised so the students do not throw the carriage too hard. Through demonstrations by the teacher and practice by the students this art can be mastered.

Table 49 shows that approximately 95 per cent of the teachers demonstrate the art of returning the carriage. About 45 per cent of the teachers demonstrate this art occasionally during the year, about 28 per cent demonstrate the skill only when introduced, and 27 per cent demonstrate the skill frequently during the year.

TABLE 49  
CARRIAGE RETURN

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	92	94	100
Only when intro- duced	27	25	32
Occasionally	50	50	40
Frequently	23	25	28

Addressing envelopes- It is very good practice for the students to practice inserting envelopes and addressing them at as fast a rate as possible. First of all the students should be informed of how to address the envelopes in regard to spaces from the top of the envelop and from the left side of the envelope.

The definite instructions for the placement of the address should be followed carefully until the students have trained their eyes to judge the correct placement of the address. Once they have trained themselves to

estimate the correct placement of the address, they can simply twirl the envelope to the correct position without loss of time.

Table 50 shows that teachers do not demonstrate this skill too often. This skill is demonstrated more by the Graded and Consolidated school teachers than by the other teachers. About 47 per cent of the teachers who answered the skill believe it should be demonstrated only when introduced, 43 per cent of the teachers demonstrate the skill occasionally during the year, and only about 10 per cent demonstrate the skill frequently during the year.

TABLE 50  
INSERTION AND ADDRESSING OF ENVELOPES

When demonstrate	Percentages		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	82	74	92
Only when introduced	47	40	52
Occasionally	39	48	43
Frequently	14	12	5

Teachers as a rule do not remind the student often enough about their posture. It is quite common to go into a typing class and find the students in practically any position imaginable. Teaching and encouraging good

posture will aid the students in getting a better word average and performance.

Correct posture- When typing, sit in an alert manner and let the body lean slightly forward from the hips with the back away from the chair. When removing the hands from the typewriter, take the at-rest posture, with the back resting against the chair.

Table 51 shows the percentage of teachers who teach this skill and also the percentages as to when this skill is demonstrated. The Graded and Consolidated school teachers teach this skill the most. About 60 per cent of the teachers demonstrate the skill frequently during the year while only 10 per cent demonstrate correct posture only when it is introduced.

TABLE 51  
CORRECT SITTING POSTURE

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	89	86	100
Only when intro- duced	14	7	8
Occasionally	29	20	40
Frequently	56	73	52

Most of the teachers show the students how to insert the paper in the machine right at the beginning of the

year and then they don't demonstrate it the rest of the year. If the students are taught the correct method at the beginning they should not have any trouble with it. The teacher should use the basic rules as outlined in the text. Many students who are left handed will want to deviate from these rules but they should not be permitted to do so. The students should practice this technique until they can insert the paper into the machine straight, so they can start typing without having to straighten it.

Table 52 shows that practically all the teachers teach the skill of inserting paper in the machine. About 45 per cent of the teachers demonstrate this skill only when the skill is introduced, 41 per cent demonstrate the skill occasionally during the year, and only 14 per cent demonstrate the skill frequently during the year.

TABLE 52  
INSERTION OF PAPER

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	92	97	100
Only when intro- duced	52	46	36
Occasionally	37	42	44
Frequently	11	12	20

Centering- Centering is demonstrated to the students occasionally during the school year. The reason for this is that new phases in centering is introduced during the year. Once the student learns the center numbers and how many spaces there are on the carriage he should not have too much trouble. Here is where the teacher will have to explain the difference in the pica and elite typewriters.

Table 53 shows that approximately 93 per cent of the teachers demonstrate the skill of centering materials. Forty six per cent of the teachers demonstrate the skill occasionally during the year. Thirty seven per cent of the teachers demonstrate the skill when it is introduced and then let the students figure the procedure from there. Only 17 per cent demonstrate the skill frequently during the year.

TABLE 53  
FINDING THE CENTER OF THE PAPER

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	89	91	100
Only when intro- duced	36	39	36
Occasionally	50	32	56
Frequently	14	29	8

Typing teachers most often explain the ribbon adjustment lever only when it is introduced at the beginning of the year. In this skill the students are instructed how to set the typewriter for stenciling and also how to use the whole ribbon so as not to waste any of it. On some of the older typewriters it is practically compulsory to turn the ribbon over in order to use all of it. The newer typewriters have a scale whereby the typewriter will type on the ribbon in three positions and the one position for stenciling.

Table 54 shows that teachers do not stress this skill as much as the other skills mentioned. About 85 per cent demonstrate this skill. About 52 per cent of the teachers that answered demonstrate the skill when it is introduced, 35 per cent demonstrate the skill occasionally, and only 13 per cent demonstrate the skill frequently during the year.

TABLE 54

## RIBBON ADJUSTMENT WITH RIBBON LEVER

When demonstrated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	86	82	88
Only when introduced	53	52	45
Occasionally	36	25	45
Frequently	11	23	10



Shift key control- Learning the correct technique in using the shift key is a very important skill in typing for speed and in many cases for accuracy. It is common to notice on papers that are handed in that the student has depressed the shift key either too soon or too late. This skill should be done in one continuous act. The students should be instructed to stretch the little finger to the shift key but to keep the other fingers hovering near the typing position. They should also hold the shift key down until the letter wanted has been struck.

Table 55 shows that approximately 92 per cent of the teachers demonstrate the skill of using the shift key. About 45 per cent of the teachers demonstrate this skill occasionally during the year while about 36 per cent demonstrate the skill only when it is introduced.

TABLE 55

## SHIFT KEY CONTROL

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	91	94	92
Only when intro- duced	38	34	39
Occasionally	50	50	39
Frequently	12	16	22

The teaching of the line scale is done by a larger percentage of the Graded and Consolidated teachers than by the other teachers. Most of the teachers, who answered the question, believe it should be taught occasionally during the school year. The teacher should instruct the students to insert the paper in the machine so the left edge of the sheet will appear at the zero mark on the line scale. If this procedure is not followed the students will not be able to center their material.

Table 56 shows that approximately 90 per cent demonstrate the skill of using the line scale for paper placement. This skill is demonstrated by about 54 per cent of the teachers occasionally during the year. About 30 per cent demonstrate the skill only when introduced and 16 per cent demonstrate it frequently during the year.

TABLE 56  
USING THE LINE SCALE

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	82	94	96
Only when intro- duced	32	34	21
Occasionally	57	50	50
Frequently	11	16	29

Erasing- Most of the teachers introduce the art of erasing carbon copies then it is not stressed to any degree the rest of the year. The students should be instructed to use small scraps of paper to insert behind the carbon sheets so the carbon will not smear on the typing sheet when they are erasing the page before the carbon. A clean eraser is also essential.

Table 57 shows that all of the Graded and Consolidated school teachers teach the skill of erasing carbon copies while approximately 75 per cent of the other teachers do so. This skill is demonstrated by approximately 50 per cent of the teachers only when it is introduced, 30 per cent demonstrate the skill occasionally, and 20 per cent demonstrate the skill frequently.

TABLE 57  
ERASING CARBON COPIES

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	79	68	100
Only when intro- duced	59	34	28
Occasionally	28	34	28
Frequently	13	32	16

Tabulation- Tabulation is taught occasionally during the school year. Many students will have trouble with tabulation and it would be considered very important to keep stressing on this. The student should know enough about centering to set up any material in the text. Tabulating should be taught to each student on both the pica and elite typewriter.

Table 58 shows that the Fully Accredited school teachers do not teach the skill of tabulation as much as the other two classifications of schools. This skill is demonstrated occasionally during the year by 47 per cent of the teachers, 33 per cent demonstrate it frequently, and only 20 per cent demonstrate the skill when it is introduced.

TABLE 58  
TABULATION ADJUSTMENTS

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	89	91	100
Only when intro- duced	17	10	32
Occasionally	55	58	28
Frequently	28	32	40

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The first step in learning to type is to associate the controlling finger with the reach to be made. The writing position from which strikes are made is known as the typing position. The fingers of the left hand cover a s d f keys; the fingers of the right hand, the ; l k j keys. The students should be instructed to place their fingers on these keys before typing anything. If the fingers are curved correctly the stretch may be made to any key needed.

Table 59 shows that approximately 90 per cent of the teachers demonstrate the correct stroking posture to their students. This skill is demonstrated frequently during the year by 50 per cent of the teachers, and it is demonstrated occasionally by 37 per cent of the teachers.

TABLE 59  
CORRECT STROKING POSTURE

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	89	91	92
Only when intro- duced	13	13	0
Occasionally	43	29	52
Frequently	44	58	48

Most of the teachers explain the skill of changing ribbons only when it is introduced. Because of the few opportunities the students will have of changing ribbons in their typing classes this skill is not too well known by the students. Most often the teacher will have the students look on as someone does the work. The main thing the teacher should do is to tell the students always to look at the ribbon before it is removed so as to put the new ribbon on in the same manner.

Table 60 shows that approximately 86 per cent of the teachers demonstrate this skill to their classes. About 45 per cent of the teachers demonstrate this skill only when it is introduced and about 35 per cent demonstrate this skill occasionally during the year.

TABLE 60  
CHANGING RIBBONS

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	86	82	92
Only when intro- duced	45	39	52
Occasionally	39	36	30
Frequently	16	25	18

The paper release should be used when the students want to take a sheet of paper out of the typewriter. If the paper release is not used and the paper is pulled from the machine the platen is forced to roll around which causes unnecessary wear on the typewriter. After the paper has been removed from the typewriter the paper release lever should be placed back in the original position.

Table 61 shows that approximately 87 per cent of the teachers do demonstrate this skill to their classes. About forty two per cent of the teachers demonstrate this skill only when it is introduced and 19 per cent demonstrate it frequently during the year.

TABLE 61  
PAPER RELEASE

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	89	85	96
Only when intro- duced	46	34	46
Occasionally	35	51	30
Frequently	19	15	24

Cleaning and oiling machine- The typewriter must be kept clean. This is the responsibility of each typist. Dust the machine each day. A long-handled brush will enable the students to remove dust and dirt from the carriage trough and other places not readily accessible with a rag.

There was a wide variety of answers concerning this skill. Most of the teachers believed that the skill should be introduced and then let the students keep their own machines cleaned and oiled.

Table 62 shows that few teachers believe in showing the students how to clean their machines. Of those answering the skill 41 per cent believe they should demonstrate to the students only when the skill is introduced but approximately 32 per cent do demonstrate the skill occasionally during the year.

TABLE 62  
CLEANING AND OILING MACHINE

When demon- strated	Percentage		
	Fully Accredited	Minor Accredited	Graded and Consolidated
Per cent answering	80	70	84
Only when intro- duced	38	37	47
Occasionally	33	29	33
Frequently	29	34	20



## SUMMARY

There are many teachers of typing that do not make it a practice to demonstrate on the typewriter the various skills that the students have to learn. The student can learn these skills much faster if they have the correct instruction which is for the teacher to type and actually show them how the different skills are mastered. If the teacher has not had typing and can not type the least this teacher can do is to have one of the better students demonstrate to the rest of the class.

Table 63 shows the ten most highly rated skills by the schools and then put into a comparison with the other schools. As a general rule the teachers use the same skills but they do differ somewhat in classifying their importance.

Demonstration of the carriage throw was rated first by the Fully Accredited school teachers, third by the Minor Accredited school teachers, and second by the Graded and Consolidated school teachers.

Insertion of paper was rated second by the Fully Accredited and Minor Accredited school teachers and the Graded and Consolidated school teachers did not include it in their list.

Shift key control was rated third by the Fully Accredited school teachers and fourth by the Minor Accredited and the Graded and Consolidated school teachers.

Margin adjustments was rated first by the Minor Accredited and Graded and Consolidated school teachers and fourth by the Fully Accredited school teachers.

Correct sitting posture was rated third by the Graded and Consolidated school teachers, fifth by the Fully Accredited school teachers, and tenth by the Minor Accredited school teachers.

Finding the center of the paper was rated sixth by the Fully Accredited and Minor Accredited school teachers and fifth by the Graded and Consolidated school teachers.

Tabulation adjustments was rated seventh by all the different classifications of schools.

Correct stroking posture was rated eighth by the Fully Accredited and Minor Accredited school teachers and tenth by the Graded and Consolidated school teachers.

Paper release was rated ninth by all the Classifications of schools.

Changing ribbons was rated tenth by the Fully Accredited school teachers but the other two classifications of schools did not list it in their first ten.

Using line scale in paper placement was rated fifth by the Minor Accredited school teachers, eighth by the Graded and Consolidated school teachers, and the Fully Accredited school teachers did not rate this one in their first ten choices.

Erasing carbon copies was rated sixth by the Graded and Consolidated school teachers but was not listed by the other two classifications of schools.

The skills are demonstrated most by the teachers of the Graded and Consolidated schools. This seems rather odd because it was also found in the questionnaires received that these teachers are less qualified to teach typing.

As a general rule the teachers do use demonstrations quite often in their teaching methods. It was also observed that the more complicated the skill there was less demonstrating by the teachers.

TABLE 63  
RATING OF SKILLS

Skills <sup>a</sup>	Fully Accredited	Minor Accredited	Graded and Consolidated
1.	1	3	2
2.	2	2	x
3.	3	4	4
4.	4	1	1
5.	5	10	3
6.	6	6	5
7.	7	7	7
8.	8	8	10
9.	9	9	9
10.	10	x	x
11.	x	5	8
12.	x	x	6

a. 1. Carriage throw, 2. Insertion of paper, 3. Shift key control, 4. Margin adjustments, 5. Correct sitting posture, 6. Finding the center of the paper, 7. Tabulation adjustments, 8. Correct stroking posture, 9. Paper release, 10. Changing ribbons, 11. Using line scale in paper placement, 12. Erasing on carbon copies.

## SUMMARY AND CONCLUSIONS

The teachers of typing in North Dakota all have at least four years of college training. Approximately 23 per cent of the teachers have a masters degree. About 45 per cent of the teachers have had a methods course in the teaching of typing. One of the aids for about 60 per cent of the teachers is that they have had office work which required typing.

About 55 per cent of the teachers use daily lesson plan in making their assignments. The Graded and Consolidated schools use the budget assignment the most. The contract plan is used by some of the teachers but is not a common lesson plan.

Timed tests are the most common methods of evaluating student achievement. The teacher made tests are used the least. Some teachers use either the tests that accompany the test books of teacher devised problem situation tests but neither are too common. The Fully Accredited teachers test their students more than the Minor Accredited or Graded and Consolidated school teachers.

Approximately 80 per cent of the teachers use wall charts in their teaching of typing. According to recent publications on the teaching of typing the Graded and Consolidated school teachers would be more correct but 76 per cent of these teachers still use the chart.

Approximately 95 per cent of the teachers encourage typing outside of class. There are only 10 per cent of the teachers who are responsible for another class while they are teaching typing.

There were 24 teaching devices, aids, or techniques listed in the questionnaires. A list of the ten most highly rated devices was prepared for each classification of schools. The following devices were included in each list.

1. Remedial drills and practice drills to develop accuracy
2. Timed sentence writings
3. Speed graphs
4. Teacher demonstration
5. Speed contests
6. Manipulation drills
7. Wall charts and diagrams

The Minor Accredited school teachers stressed on these seven choices the most and the Graded and Consolidated school teachers stressed them the least.

There were 15 skills listed in the section of skills demonstrated. A list of the ten most highly rated skills was prepared from each classification of schools. Eight of these ten were listed by each classification of schools. This would indicate that nearly the same methods are being used in the teaching of skills. The following is a list of the most common skills stated.

1. Carriage throw
2. Shift key control
3. Margin adjustments
4. Correct sitting posture
5. Finding the center of the paper
6. Tabulation adjustments
7. Correct stroking posture
8. Paper release

The Graded and Consolidated school teachers stressed the demonstrations of these skills the most and the teachers of the Minor Accredited schools stressed them the least. The Graded and Consolidated school teachers are not as qualified usually as the other teachers but yet they do demonstrate to their classes the most.

Most of the teachers usually use the same methods in their teaching of typing. The teachers do differ considerably regarding the importance of the different practices used. There are some cases where a few of the teachers do very little demonstrating and seem to think all there is to teaching typing is to turn the students loose in the typing room. This procedure is not wide spread however.

The Graded and Consolidated school teachers are not as well qualified to teach typing but as a rule they use the same teaching practices as the other teachers. The section dealing with demonstration of skills was answered more completely by the Graded and Consolidated school teachers.

The requirements for learning typing and also for the passing of the course are quite similar as set up

by all the teachers. Some teachers will stress one phase where another teacher will stress another but in the end the student will have to meet approximately the same requirements.



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## APPENDIX A

## Schools Who Answered the Questionnaire

## Fully Accredited Schools

1. Anamoose	27. Granville	53. Noonan
2. Ashley	28. Grenora	54. Parshall
3. Beach	29. Hankinson	55. Plaza
4. Bismarck	30. Hazelton	56. Reeder
5. Bowbells	31. Hazen	57. Reynolds
6. Buxton	32. Hebron	58. Riverdale
7. Carrington	33. Hettinger	59. Rollette
8. Carson	34. Hillsboro	60. Rugby
9. Columbus	35. Hoople	61. St. Thomas
10. Cooperstown	36. Hope	62. Sanish
11. Crosby	37. Kennare	63. Sentinel Butte
12. Crystal	38. Killdeer	64. Sherwood
13. Devils Lake	39. Kulm	65. Starkweather
14. Dickinson	40. Langdon	66. Steele
15. Drake	41. Linton	67. Streeter
16. Drayton	42. McClusky	68. Tioga
17. Dunsieith	43. McVille	69. Towner
18. Edgeley	44. Mandan	70. Turtle Lake
19. Elgin	45. Marion	71. Wahpeton
20. Ellendale	46. Michigan	72. Walhalla
21. Finley	47. Milnor	73. Watford City
22. Forman	48. Milton	74. Willow City
23. Fort Totten	49. Minot	75. Wilton
24. Glenburn	50. Minto	76. Wishek
25. Goodrich	51. Nече	
26. Grand Forks	52. New Salem	

## Minor Accredited Schools

1. Alexander	13. Gardner	25. Nome
2. Bathgate	14. Gladstone	26. Pekine
3. Buffalo	15. Golden Valley	27. Petersburg
4. Crary	16. Gwinner	28. Pettibone
5. Dazey	17. Hampden	29. Portal
6. Dodge	18. Hannah	30. Sheldon
7. Douglas	19. Inkster	31. Surrey
8. Edinburg	20. Lansford	32. Tappen
9. Esmond	21. McGregor	33. Tower City
10. Fingal	22. McHenry	34. Wild Rose
11. Flaxton	23. Marmouth	35. Zeeland
12. Fullerton	24. Maxbass	

Graded and Consolidated  
Schools

- |              |                 |                 |
|--------------|-----------------|-----------------|
| 1. Adams     | 10. Fort Ransom | 19. Pillsbury   |
| 2. Ambrose   | 11. Gardena     | 20. Rutland     |
| 3. Arthur    | 12. Grace City  | 21. Selfridge   |
| 4. Center    | 13. Guelph      | 22. Solen       |
| 5. Chaffe    | 14. Karlsruhe   | 23. South Heart |
| 6. Doyon     | 15. Kramer      | 24. Stirum      |
| 7. Driscoll  | 16. Lefor       | 25. Tolna       |
| 8. Fairdale  | 17. Luverne     |                 |
| 9. Fordville | 18. Mercer      |                 |

## APPENDIX B

## QUESTIONNAIRE

Part I Education and Experience of the Teacher.  
(Please fill out the blanks which are designated in the questionnaire. If you will answer the questions as exactly as possible it will be greatly appreciated.)

1. What is the classification of your school?  Fully Accredited  Minor Accredited  Graded and Consolidated
2. How much college training do you have?  years  B. S.  B. A.  M. A.  M. S.
3. At which of the following levels have you had a course in typewriting?  High School  College or University  Business College
4. Have you had a methods course which included the teaching of typing?  Yes  No
5. How many years have you taught typewriting?  Years
6. How many years of teaching experience do you have?  Years
7. Have you had practical experience in office work?  Yes  No  Number of months
8. Did this office work include typewriting?  Yes  No
9. What is the High School enrollment?  Number of teachers?
10. How many students do you teach in typewriting?  Boys  Girls

## Part II Teaching Practices

1. Which of the following methods of assignment do you use?  
 Budget assignment  
 Daily Assignment  
 Contract assignment (to provide for individual differences)

---

(other methods of assignment used)

2. Which of the following tests do you use?  
 Timed tests with forms that are sponsored by publishing companies and typewriting companies (i. e. Gregg Straight Copy tests, United Students' typewriting tests, etc.)  
 Tests that accompany textbooks

- Teacher made tests (i.e. True-False, etc.)  
 Teacher devised problem situations

3. Which of the following types of errors do you study?

- Manipulation or non-keyboard errors  
 Basic knowledge or in understanding (letter placement, letter forms, etc.)  
 Reading copy  
 Stroking technique

4. Which of the following methods of evaluating student achievement do you use?

- Straight copy tests only  
 Timed writing of business letters, tabulation, etc.  
 Combination of the above methods

\_\_\_\_\_  
 (other methods used)

5. Please answer the following questions by placing a check under the Yes or No column to the left, or by writing the answer in the blank provided.

- | Yes                      | No                       |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Do you require perfect copies in your assignments?   |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Do you teach your students erasing techniques?   |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Is there a study manual available at each typewriter?  |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Do you stress speed first rather than accuracy?  |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Is there a keyboard chart posted on the wall for the students to consult when learning the keyboard? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Do you permit your students to erase on assignments?   |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Is there a dictionary available at each typewriter?  |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Do you encourage typing outside of class?  |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Do you use the state course of study in planning the course outline in typing?                       |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Do you teach your class exactly as outlined in the textbook?  |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. Are you responsible for another class at the same time that you are teaching typing?                |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. Are the typewriters available for the personal use of the students?                                 |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. What word average do you expect your students to attain?  |

6. In the column at the left, place a check before the listed teaching devices, aids, or techniques that you are now using or what you have used to aid the learning process in the teaching of typewriting. In the column at the right, write the number in the rating scale that best describes your appraisal of that device, aid, or technique.

## Rating Scale

1. very effective
2. generally effective
3. ineffective

Have Using Rating  
used now

___	___	___	1. Drills with keys locked
___	___	___	2. Wall charts and diagrams
___	___	___	3. Unison syllable drills (teacher dictates frf, efc, and etc.)
___	___	___	4. Unison word drills (teacher dictates words as what, where, and etc.)
___	___	___	5. Teacher demonstration
___	___	___	6. Speed graphs (charting the speeds of individual students)
___	___	___	7. Films
___	___	___	8. Dictating at the typewriter
___	___	___	9. Individual syllable drills (drills designed to correct)
___	___	___	10. Rapid stroking of home row
___	___	___	11. Daily finger gymnastics
___	___	___	12. Speed contests
___	___	___	13. Rhythm drills (with type-pacer, etc.)
___	___	___	14. Analyzing individual errors by means of charts
___	___	___	15. Displays of model letters
___	___	___	16. Typing with ribbon on stencil
___	___	___	17. Remedial drills and practice drills to develop accuracy
___	___	___	18. Manipulation drills (calling the throw, shift key drill, and etc.)
___	___	___	19. Awards and medals
___	___	___	20. Displays of student prepared material
___	___	___	21. Individual progress scale of chart
___	___	___	22. Composing at the typewriter
___	___	___	23. Music ( typing to tempo of music)
___	___	___	24. Timed sentence writing

7. Please place a check mark in the space before the skill that you demonstrate to your class. In the column on the right, please describe, by using the rating scale provided, the extent that you demonstrate the particular skill.

Rating Scale

1. Only when skill is introduced
2. Skill demonstrated occasionally after introduction
3. Skill demonstrated frequently throughout the course

Skills demon- strated	Extent demon- strated
-----------------------------	-----------------------------

- |   |   |  |
|---|---|--|
| — | — | 1. Margin adjustments                    |
| — | — | 2. Carriage throw                        |
| — | — | 3. Insertion and addressing of envelopes |
| — | — | 4. Correct stroking posture              |
| — | — | 5. Insertion of paper                    |
| — | — | 6. Finding the center of the paper       |
| — | — | 7. Ribbon adjustment with ribbon lever   |
| — | — | 8. Shift key control                     |
| — | — | 9. Using line scale in paper placement   |
| — | — | 10. Erasing on carbon copies             |
| — | — | 11. Tabulation adjustments               |
| — | — | 12. Correct sitting posture              |
| — | — | 13. Changing ribbons                     |
| — | — | 14. Paper release                        |
| — | — | 15. Cleaning and oiling machine          |